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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,981	01/16/2004	Tong Xie	10030168-1	7912

7590 09/21/2005

AGILENT TECHNOLOGIES, INC.  
Legal Department, DL429  
Intellectual Property Administration  
P.O. Box 7599  
Loveland, CO 80537-0599

EXAMINER

LU, TONY W

ART UNIT PAPER NUMBER

2878

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

**Office Action Summary**

Application No.

10/758,981

Applicant(s)

XIE ET AL.

Examiner

Tony Lu

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/16/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The attempt to incorporate subject matter into this application by reference to the US patent application filed on January 16, 2004, entitled "Position Determination and Motion Tracking" is ineffective because the serial number of the application is not presented.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7-12, 15, and 17-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Lau et al US4714339.

With respect to claims 1 and 9, Lau et al disclose a tracking system for tracking a target comprising: an optical device(27) for generating an incident light beam(52) and a reference light beam(reference beam, read col.4, lines 40-45) from a light beam(42); and a light beam steering device(28) for sweeping said incident light beam through an

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angular range(col.3,lines 47-65) to cause a reflection of said incident light beam by a target(10), wherein said reflection of said incident light beam is directed to interfere with said reference light beam to form an interference light beam(col.5), wherein a position of said target is determined using an interferometric technique utilizing an angular value of said incident light beam and said interference light beam(col.3-5), and wherein said angular value depends on said reflection(col.3-4); and a computer system(30) for receiving and using said position of said target(col.6-8).

With respect to claims 2 and 10, per the above discussion, Lau et al disclose a processing unit(48) for determining said position of said target.

With respect to claims 3 and 11, per the above discussion, Lau et al disclose said light beam has a single wavelength(col.4, lines 10-50), and wherein said position of said target is a relative position(col.3,lines 47-65).

With respect to claims 4 and 12, per the above discussion, Lau et al disclose said light beam has a plurality of wavelengths(col.4, lines 10-50), and said position of said target is an absolute position(col.4,lines 1-10).

With respect to claims 5 and 15, per the above discussion, Lau et al disclose said target includes a retro-reflecting surface(note that the target has a mirror surface,24 )

With respect to claims 7 and 17, per the above discussion, Lau et al disclose said light beam steering device is a scanning mirror beam steering device(col.3, lines 47-67).

With respect to claims 8 and 18, per the above discussion, Lau et al disclose said light beam is generated by a semiconductor laser technology-based light source(27).

Lau et al's system inherently performs the claimed method steps.(claims 19-25)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 13, 14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lau et al US4714339.

With respect to claims 6 and 16, per the above discussion, although Lau et al lack a clear inclusion of a condition whereat if the target reflects light beam by a particular angular value of the incident light beam, thus the steering device sweeps the incident light beam through a certain angular range until the target fails to reflect the incident light beam, this would have been inherently included, however, if not, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lau et al accordingly in order to provide a more reliable position tracking performance of the system.

With respect to claims 13 and 16, per the above discussion, Lau et al disclose the tracking system can be used and/or robot performances(col.1-2), but lack an inclusion of a cursor in said computer system.

Using a detected position to control a cursor in said computer system would have been obvious to one of ordinary skill in the art in order to provide a visual indication of the intended target to the users and/or the operators of the system.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Lau et al's system to have said position controls a cursor in said computer system in order to provide a more reliable performance of the system.

The further inclusion of an inputting data would have been obvious for similar reasons set forth above.

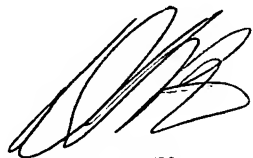
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Lu whose telephone number is 5712728448. The examiner can normally be reached on M-F 9:00am- 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 5712722444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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DAVID PORTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800